

**Commonwealth of Kentucky
Division for Air Quality**

PERMIT APPLICATION SUMMARY FORM

Completed by: Lisa Beckham

GENERAL INFORMATION:

Name:	Samaritan Hospital
Address:	310 S. Limestone Street Lexington, KY 40508
Date application received:	9/12/2007
SIC Code/SIC description:	8062, General Medical and Surgical Hospitals
Source ID:	21-067-00096
Agency Interest:	1054
Activity:	APE20070001
Permit:	F-07-050

APPLICATION TYPE/PERMIT ACTIVITY:

<input checked="" type="checkbox"/> Initial issuance	<input type="checkbox"/> General permit
<input type="checkbox"/> Permit modification	<input checked="" type="checkbox"/> Conditional major
__Administrative	<input type="checkbox"/> Title V
__Minor	<input type="checkbox"/> Synthetic minor
__Significant	<input checked="" type="checkbox"/> Operating
<input type="checkbox"/> Permit renewal	<input type="checkbox"/> Construction/operating

COMPLIANCE SUMMARY:

<input type="checkbox"/> Source is out of compliance	<input type="checkbox"/> Compliance schedule included
<input type="checkbox"/> Compliance certification signed	

APPLICABLE REQUIREMENTS LIST:

<input type="checkbox"/> NSR	<input checked="" type="checkbox"/> NSPS	<input checked="" type="checkbox"/> SIP
<input type="checkbox"/> PSD	<input type="checkbox"/> NESHAPS	<input type="checkbox"/> Other
<input type="checkbox"/> Netted out of PSD/NSR	<input type="checkbox"/> Not major modification per 401 KAR 51:001, 1(116)(b)	

MISCELLANEOUS:

- ☐ Acid rain source
- ☐ Source subject to 112(r)
- ☒ Source applied for federally enforceable emissions cap
- ☐ Source provided terms for alternative operating scenarios
- ☐ Source subject to a MACT standard
- ☐ Source requested case-by-case 112(g) or (j) determination
- ☐ Application proposes new control technology
- ☒ Certified by responsible official
- ☒ Diagrams or drawings included
- ☐ Confidential business information (CBI) submitted in application
- ☐ Pollution Prevention Measures
- ☐ Area is non-attainment (list pollutants):

EMISSIONS SUMMARY:

Pollutant	Actual* (tpy)	Potential (tpy)
PM/PM ₁₀	0.13/0.79	3.5/3.5
SO ₂	0.016	109
NO _x	3.66	43.5
CO	0.9	18.7
VOC	0.07	1.9

*Based on 2005 KYEIS Survey

SOURCE DESCRIPTION:

An application for an initial conditional major permit was received from the University of Kentucky for the purchase of the Samaritan Hospital on July 16, 2007, with supplemental information July 18, 2007 and September 12, 2007 respectively. Samaritan Hospital is a general medical and surgical hospital in Lexington, Kentucky. The facility has been operating existing units on the permit O-84-110, issued in May 1984. Internal audit of the facility indicate that the currently have three indirect heat exchangers rated at 20.9 MMBtu/hr, 12 MMBtu/hr, and 12 MMBtu/hr, and three emergency diesel generators rated at 235 kW, 385 kW, and 275 kW. The indirect heat exchangers burn natural gas and diesel fuel, and the potential emissions of sulfur dioxide exceed the major source threshold. The facility has proposed emission and operating limits to preclude the applicability of Title V [401 KAR 52:020] permitting requirements. Additionally, this permit limits source-wide fuel oil usage to 2,292,000 gallons per year, and the sulfur content of fuel oil shall not exceed 0.5 percent by weight. Emissions calculations were generated based on emission factors from AP-42.

EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

Emission Unit 01 Indirect Heat Exchanger:

Pursuant to 401 KAR 61:015, Section 4(1), particulate emissions shall not exceed 0.63 lbs/MMBtu based on a three-hour average.

Pursuant to 401 KAR 61:015, Section 4(3)(b), visible emissions shall not exceed forty (40) percent opacity based on a six-minute average except that a maximum of sixty (60) percent opacity shall be permissible for not more than six (6) consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot.

Pursuant to 401 KAR 61:015, Section 4(3)(c), emissions shall not exceed twenty (40) percent opacity based on a six-minute average except during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

Pursuant to 401 KAR 60:015, Section 5(1), sulfur dioxide emissions shall not exceed 5.43 lbs/MMBtu based on a twenty-four hour average.

Emission Units 02 and 03 Indirect Heat Exchangers:

Pursuant to 401 KAR 59:015, Section 4(1)(c), particulate emissions from each unit's stack shall not exceed 0.39 lb/MMBtu based on a three-hour-average.

Pursuant to 401 KAR 59:015, Section 4(2), emissions shall not exceed twenty (20) percent opacity based on a six-minute average, except for:

1. Indirect heat exchangers with heat input capacity of less than 250 million BTU per hour, a maximum of forty (40) percent opacity shall be permissible for not more than 6 consecutive minutes in any sixty (60) consecutive minutes during cleaning the fire box or blowing soot and
2. Emissions from an indirect heat exchanger during building a new fire for the period required to bring the boiler up to operating conditions provided the method used is that recommended by the manufacturer and the time does not exceed the manufacturer's recommendations.

Pursuant to 40 CFR 60.42c, sulfur dioxide emissions from each unit's stack shall not exceed 0.50 lb/MMBtu; as an alternative, the permittee shall not combust oil that contains greater than 0.5 weight percent sulfur.

SOURCE-WIDE EMISSIONS AND OPERATING CAPS DESCRIPTIONS:

To preclude the applicability of 401 KAR 52:020, source-wide emissions of sulfur dioxide shall not exceed 90 tons per year based on a twelve-month rolling total, and fuel oil shall not exceed 2,292,000 gallons per year based on a twelve-month rolling total. The sulfur content of fuel oil shall not exceed 0.5 percent by weight. Operating hours for each diesel generator unit shall not exceed 500 hours per year based on a twelve-month rolling total.